

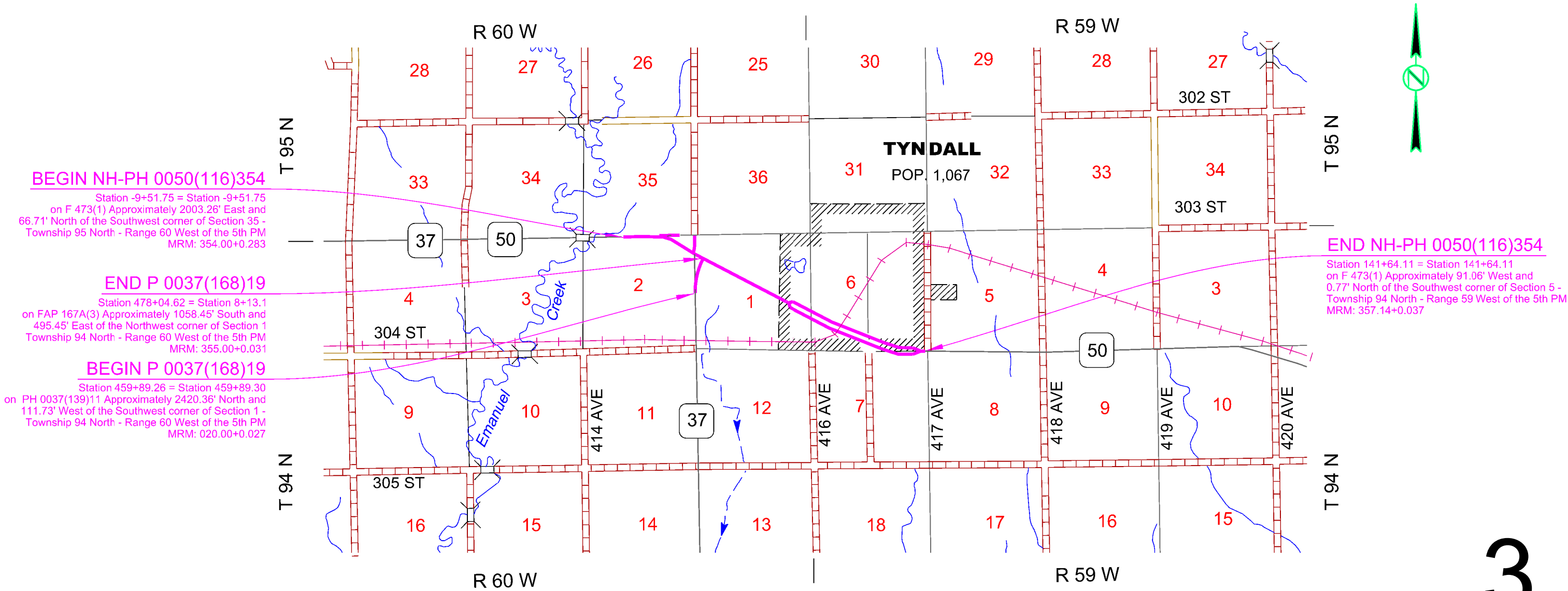
SECTION M: PERMANENT MARKING PLANS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	M1	M19

Plotting Date: 12/05/2024

INDEX OF SHEETS

Sheet	M1	Title Sheet & Layout Map
Sheet	M2 & M3	Quantities and Notes
Sheet	M4 thru M18	Pavement Marking Layouts
Sheet	M19	Stop line Installation Detail



3

October 15, 2025

ESTIMATE OF QUANTITIES – 04K7

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E1200	High Build Waterborne Pavement Marking Paint, White	231	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	173	Gal

ESTIMATE OF QUANTITIES – 080L

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E1200	High Build Waterborne Pavement Marking Paint, White	18	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	5	Gal

HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

All materials will be applied as per manufacturer’s recommendations. High build waterborne pavement marking paint will conform to the supplemental specifications for Section 980.1 B.

Reflective media will consist of glass beads. Reflective media will require a Certificate of Compliance for Certification for each source and lot. Acceptance sampling will not be required.

RATES OF MATERIALS FOR HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

Solid 4” line = 22.5 Gals/Mile
Dashed 4” line = 6.2 Gal/Mile
Glass Beads = 8 Lbs/Gal.

All cost for materials, labor, and equipment necessary to furnish and install the pavement markings will be incidental to the contract unit price for the respective High Build Waterborne Pavement Marking Paint items.

RETROREFLECTIVITY FOR PAVEMENT MARKING PAINT

The Department may take retroreflectivity readings on the pavement marking lines after 2 days and within 30 days of the line application using either a portable or mobile retroreflectometer that conforms to 30-meter geometry. If the Department chooses to take retroreflectivity readings, three retroreflectivity readings will be taken on each line at each test location. The three readings will be averaged and become the reading for that test location.

If the Department chooses to take retroreflectivity readings, three readings will be taken on the edge lines and lane lines in the direction of application. For combination solid yellow and skip yellow lines for turn lanes and for centerline markings on two-way roadways, three readings will be taken in one direction, the reflectometer will be turned 180 degrees and three more readings will be taken. The six readings for the centerline markings will be averaged and become the test reading for that test location.

If the Department chooses to take readings, the minimum retroreflectivity values will be 275 mc/m²/lux for white and 170 mc/m²/lux for yellow.

080L- PAVEMENT MARKING

Typical pavement marking as shown on this sheet will be applied throughout the entire length of two lane roadway.

Traffic Control will be incidental to the cost of application. The striping and advance or trailing warning vehicle will be equipped with flashing amber lights and advance warning arrow board.

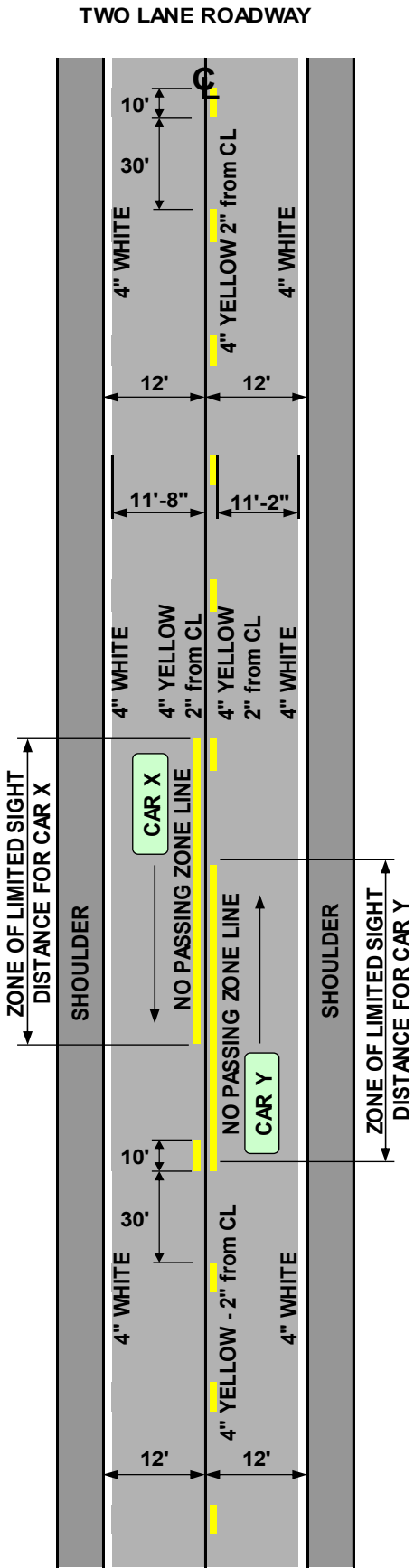
Application rates will be as follows:

Two Lane Roadway (Rates for one line)
Dashed Yellow Centerline Rate = 6.2 Gals./Pass-Mile
Solid Yellow Centerline Rate = 22.5 Gals./Pass-Mile
Solid White Edgeline Rate = 22.5 Gals./Pass-Mile

4" Yellow Skip Centerline (when not adjacent to a 4" Yellow No Passing Zone) will be placed consistently to the south or east side of centerline.

ESTIMATED QUANTITIES (BASED ON ONE APPLICATION)	
HIGH BUILD	QUANTITY
WHITE	18 GALLONS
YELLOW	5 GALLONS

Included in the above quantities are:			
Additional White (1 Application)		Additional Yellow (1 Application)	
Description	Gallons	Description	Gallons
4" Lines	70'	Transitions	-
8" Lines	-	4" Skip Lines	-
12" Gore Lines	64'	8" Lines	-
Crosswalks	-	12" Lines	-
24" Stop Lines	12'	24" Hatches	-
24" Hatches	-	Solid Areas	-
Solid Areas	-	Additional Yellow:	-
Arrows			
Left Arrows	-	Additional Quantities	
Right Arrows	-	Rates of Coverage:	SqFt/Gal
Straight Arrows	-	4", 8" & 12" Lines	60
Combo Arrows	-	24" Lines & Hatches	40
Lane Drop Arrows	-	Arrows, Messages and Solid Areas	25
Messages			
STOP	-		
STOP AHEAD	-	All pavement marking dimensions	
R X R w/ Stop Lines	-	are based on 12' driving lanes.	
SCHOOL X-ING	-		
Additional White:	2		



04K7 - PAVEMENT MARKING

Typical pavement marking as shown on this sheet will be applied throughout the entire length of two lane roadway.

Traffic Control will be incidental to the cost of application. The striper and advance or trailing warning vehicle will be equipped with flashing amber lights and advance warning arrow board.

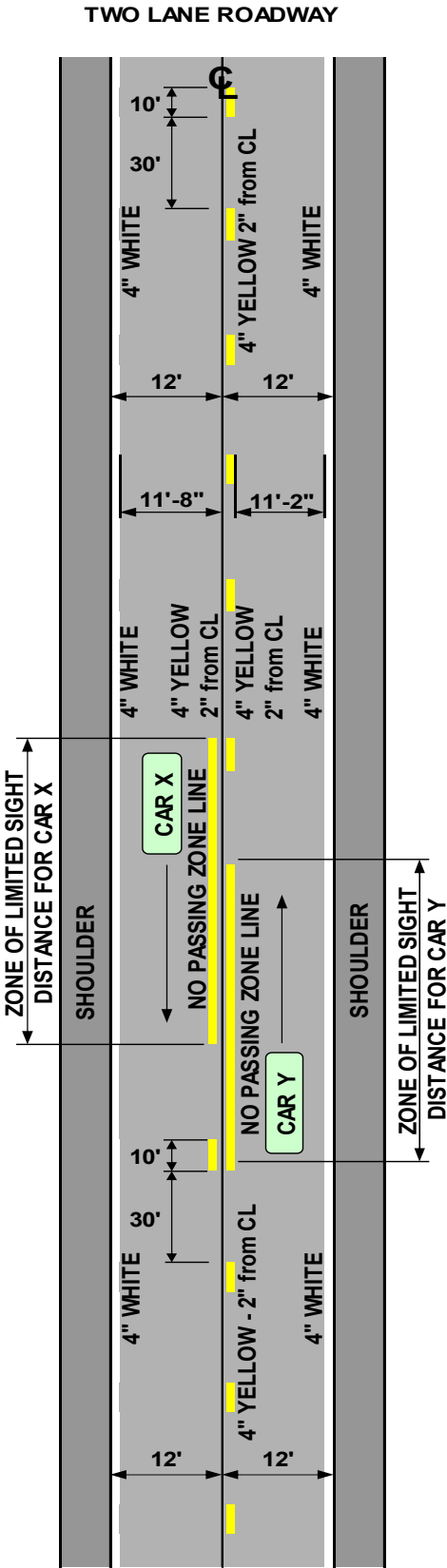
Application rates will be as follows:

Two Lane Roadway
(Rates for one line)
Dashed Yellow Centerline
Rate = 6.2 Gals./Pass-Mile
Solid Yellow Centerline
Rate = 22.5 Gals./Pass-Mile
Solid White Edgeline
Rate = 22.5 Gals./Pass-Mile

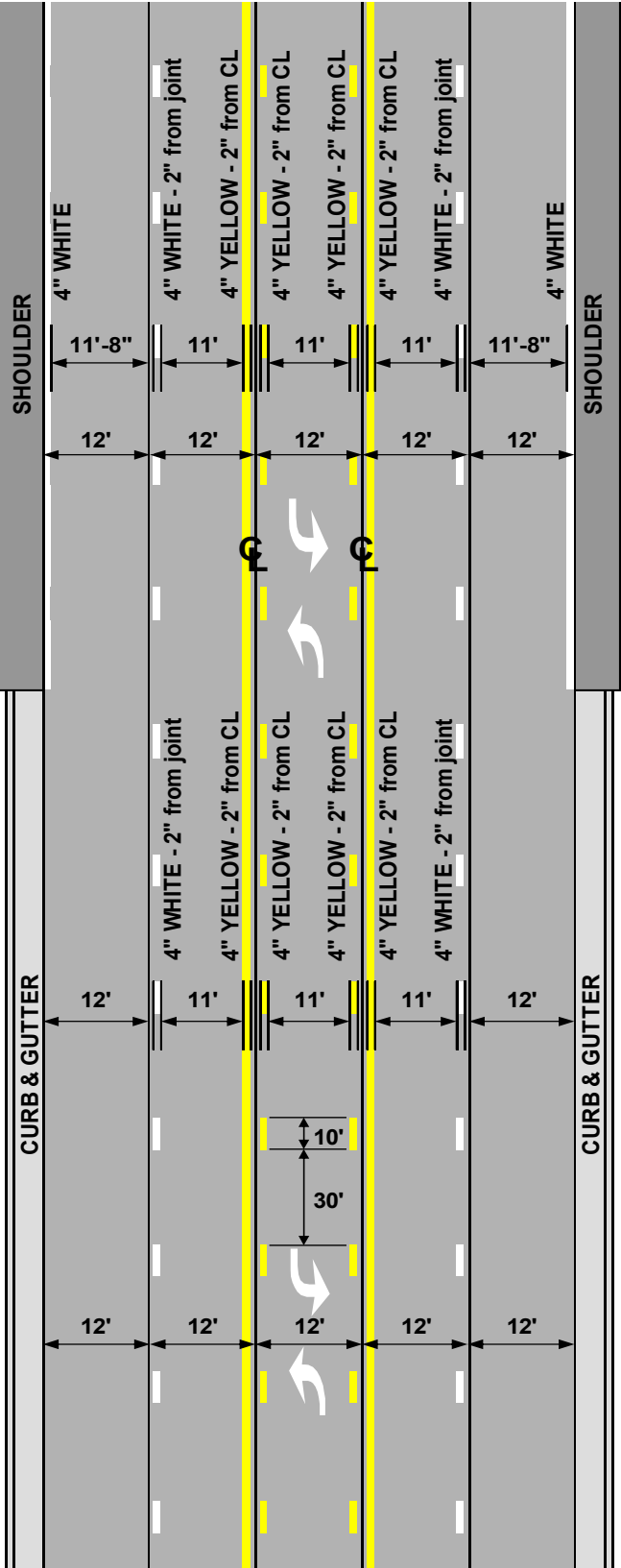
4" Yellow Skip Centerline (when not adjacent to a 4" Yellow No Passing Zone) will be placed consistently to the south or east side of centerline.

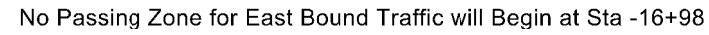
ESTIMATED QUANTITIES (BASED ON ONE APPLICATION)	
HIGH BUILD	QUANTITY
WHITE	231 GALLONS
YELLOW	173 GALLONS

Included in the above quantities are:					
Additional White (1 Application)			Additional Yellow (1 Application)		
Description		Gallons	Description		Gallons
4" Lines	9090'	50	Transitions	3.7 Ea 2886'	16
8" Lines	-	-	4" Skip Lines	5800'	32
12" Gore Lines	2432'	40	8" Lines	-	-
Crosswalks	-	-	12" Lines	-	-
24" Stop Lines	108'	5	24" Hatches	359'	18
24" Hatches	689'	34	Solid Areas	25sf	1
Solid Areas	-	-	Additional Yellow:		67
<u>Arrows</u>					
Left Arrows	28 Ea	18	Additional Quantities		
Right Arrows	4 Ea	3	<u>Rates of Coverage:</u>		<u>SqFt/Gal</u>
Straight Arrows	-	-	4", 8" & 12" Lines		60
Combo Arrows	-	-	24" Lines & Hatches		40
Lane Reduction Arrow	4 Ea	7	Arrows, Messages		
<u>Messages</u>			and Solid Areas		25
STOP	-	-			
STOP AHEAD	-	-	All pavement marking dimensions		
R X R w/ Stop Lines	-	-	are based on 12' driving lanes.		
SCHOOL X-ING	-	-			
Additional White:		157			

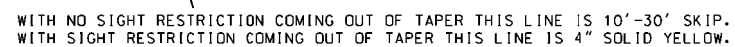
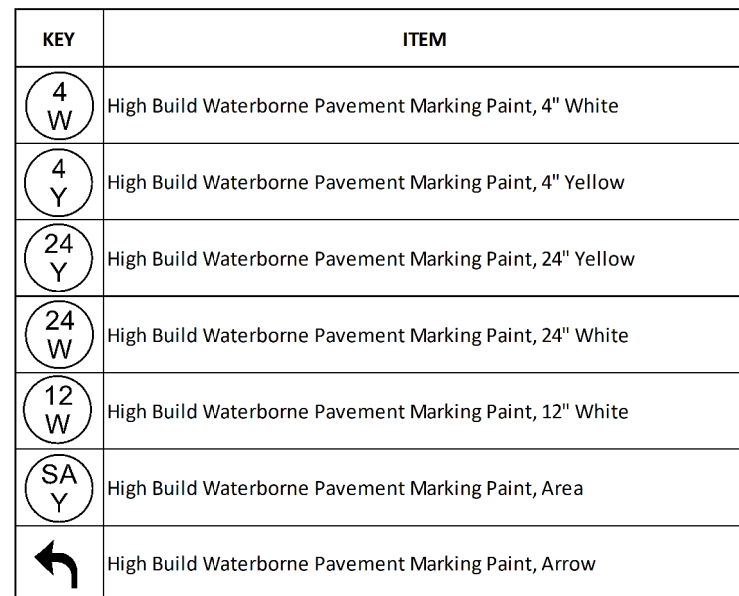


FOUR LANE ROADWAY
WITH CENTER TURN LANE



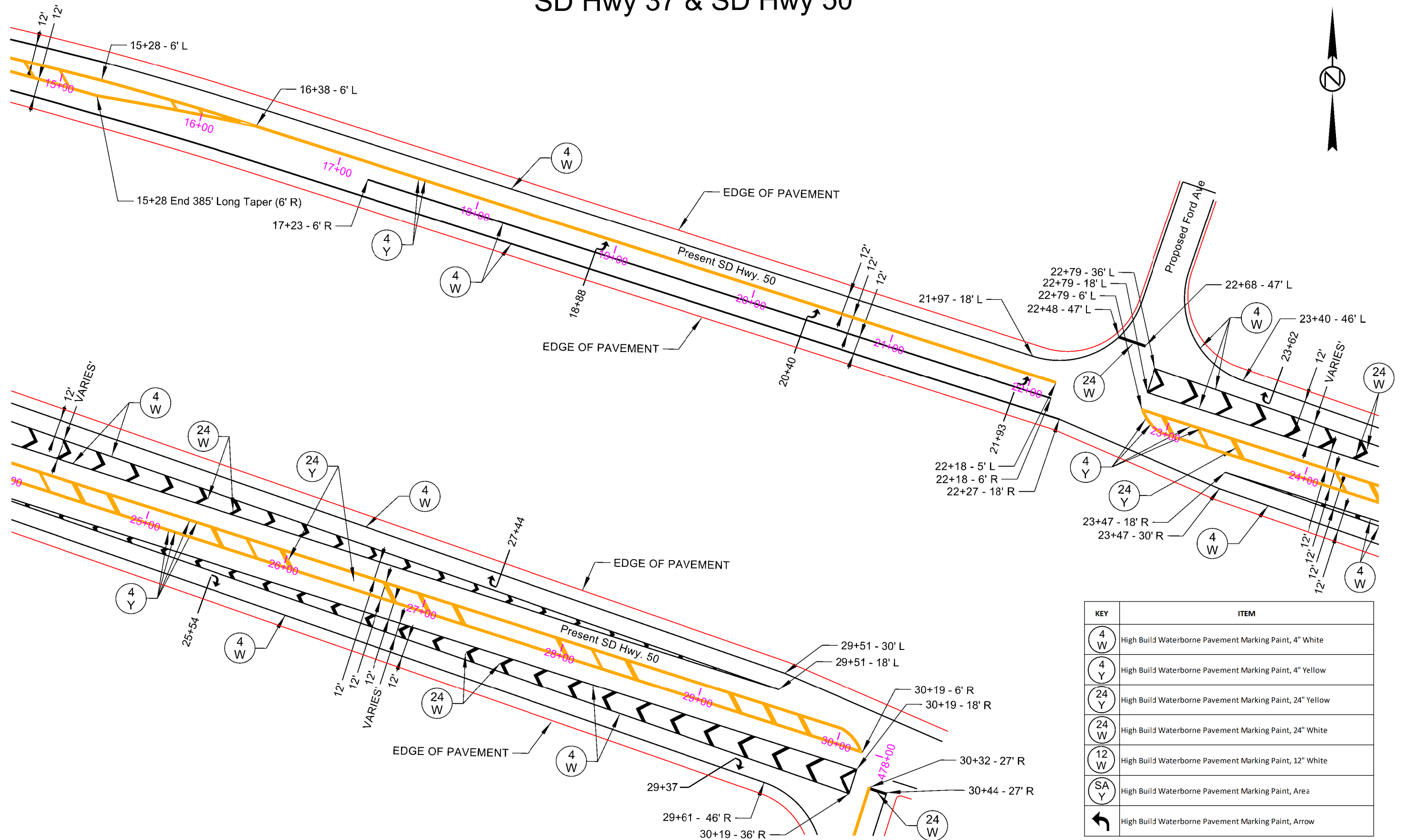
PLOT SCALE - 1:62.8941

Plotting Date: 02/06/2025
REVISED 02/06/25 GB



PAVEMENT MARKING LAYOUT

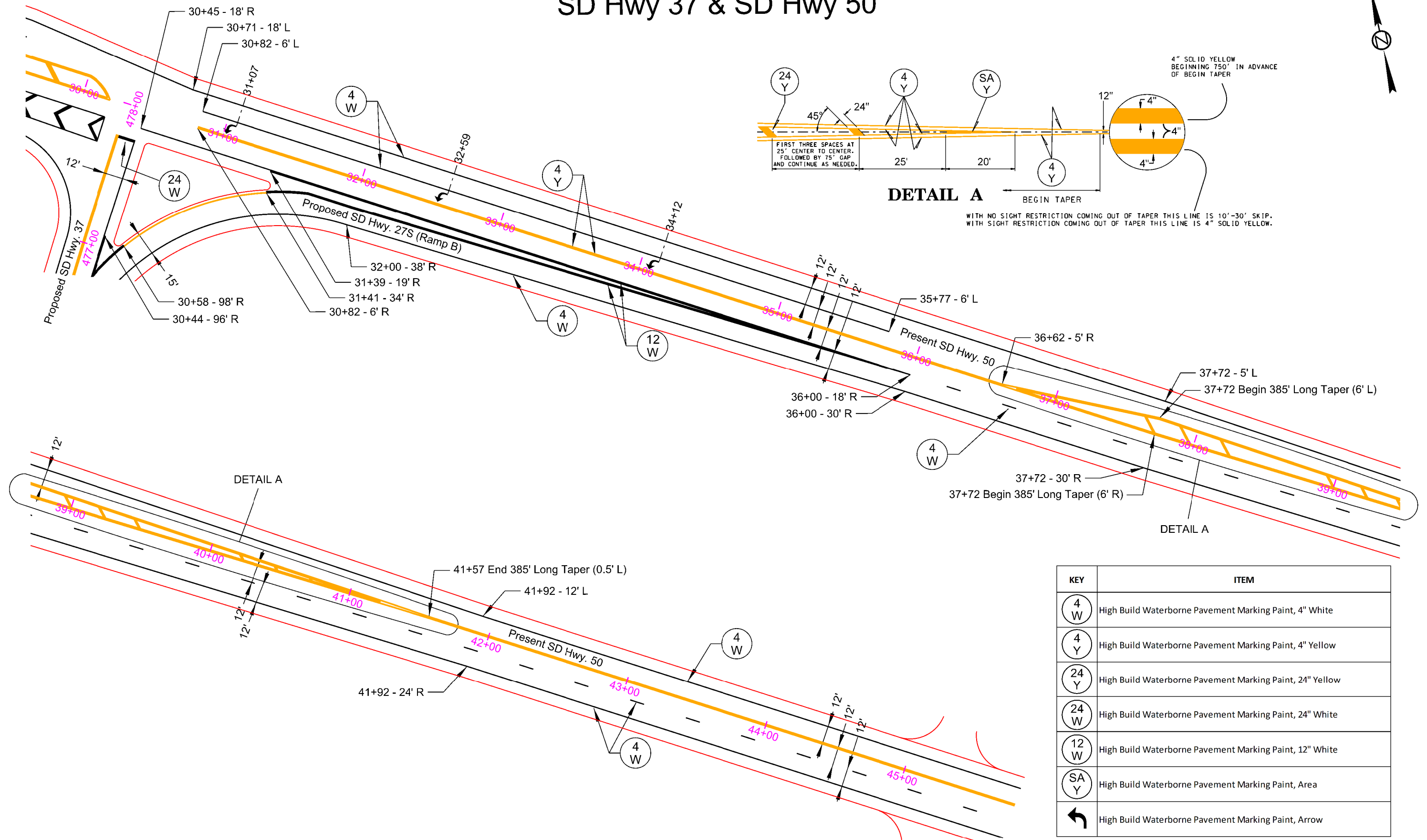
SD Hwy 37 & SD Hwy 50



KEY	ITEM
	High Build Waterborne Pavement Marking Paint, 4" White
	High Build Waterborne Pavement Marking Paint, 4" Yellow
	High Build Waterborne Pavement Marking Paint, 24" Yellow
	High Build Waterborne Pavement Marking Paint, 24" White
	High Build Waterborne Pavement Marking Paint, 12" White
	High Build Waterborne Pavement Marking Paint, Area
	High Build Waterborne Pavement Marking Paint, Arrow

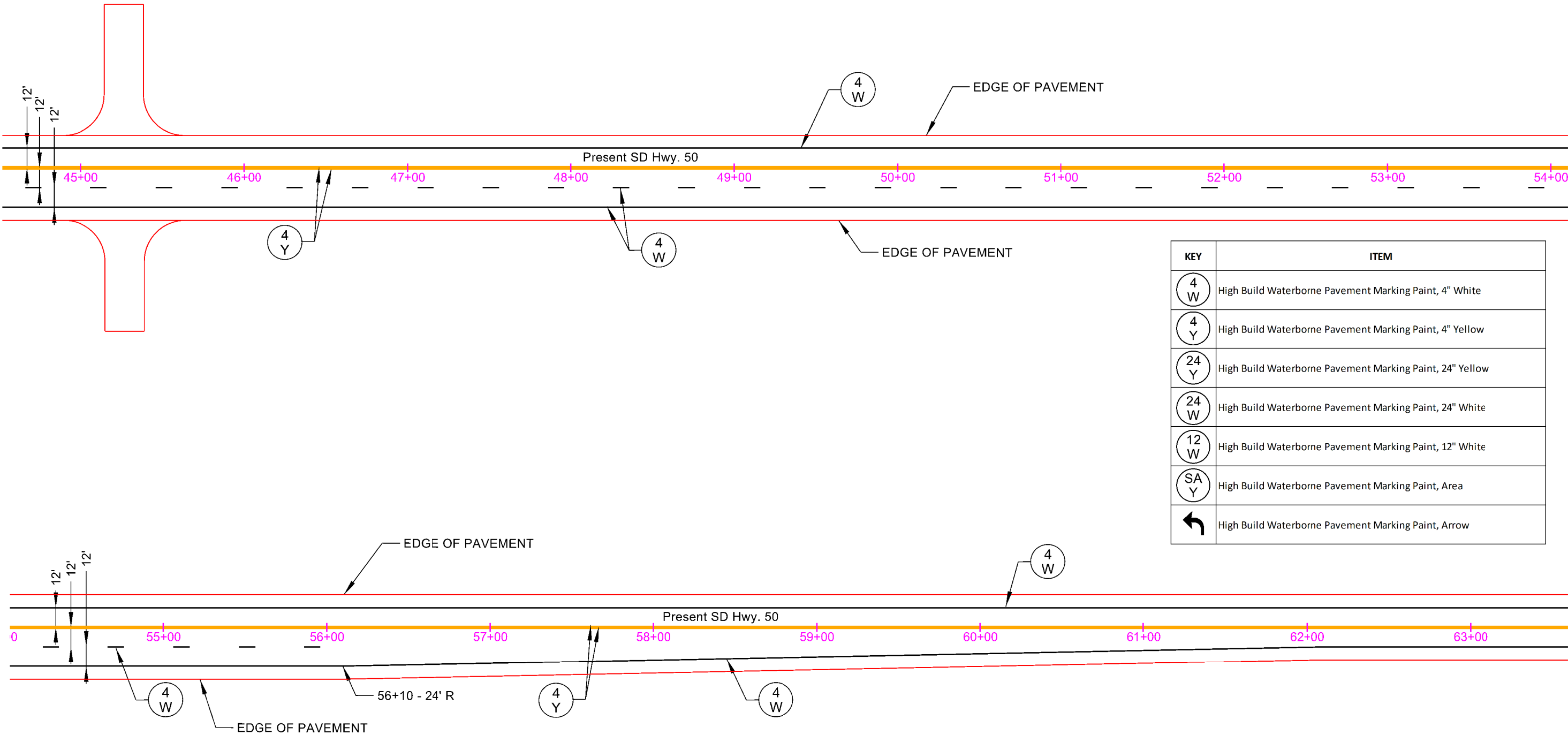
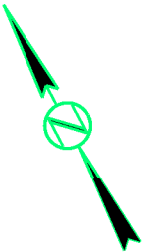
PAVEMENT MARKING LAYOUT

SD Hwy 37 & SD Hwy 50

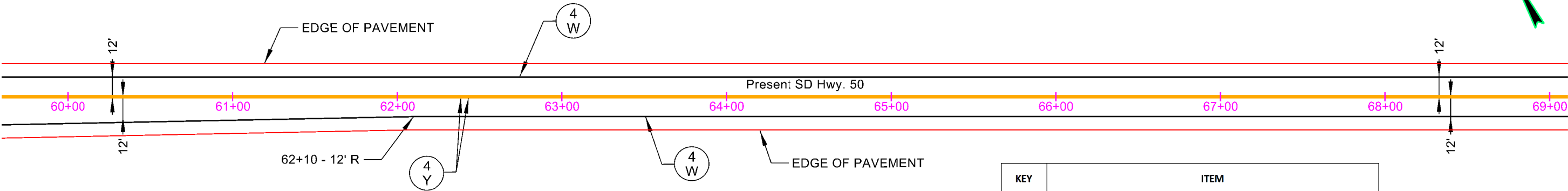


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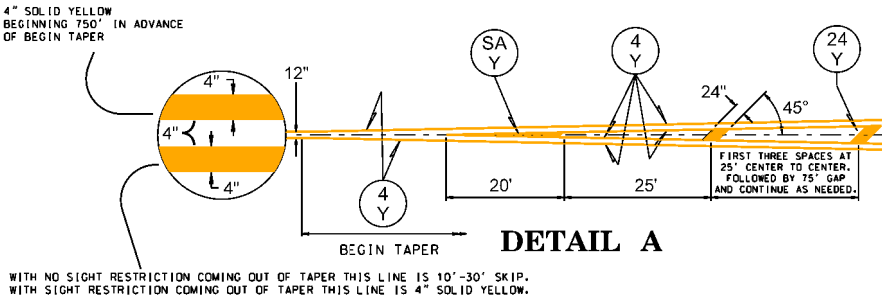
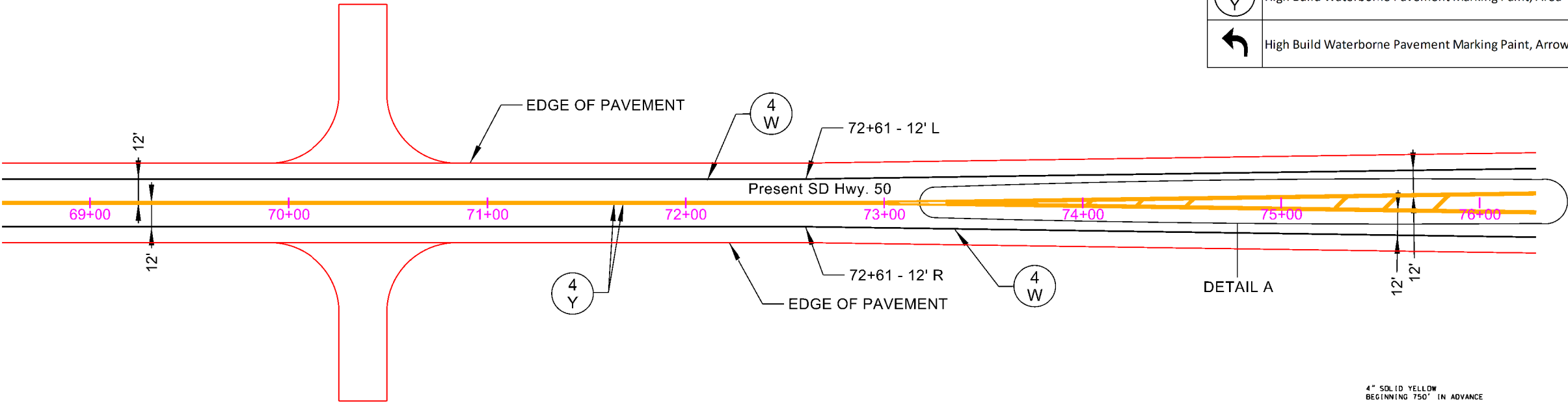
PAVEMENT MARKING LAYOUT
SD Hwy 37 & SD Hwy 50



PAVEMENT MARKING LAYOUT
SD Hwy 37 & SD Hwy 50

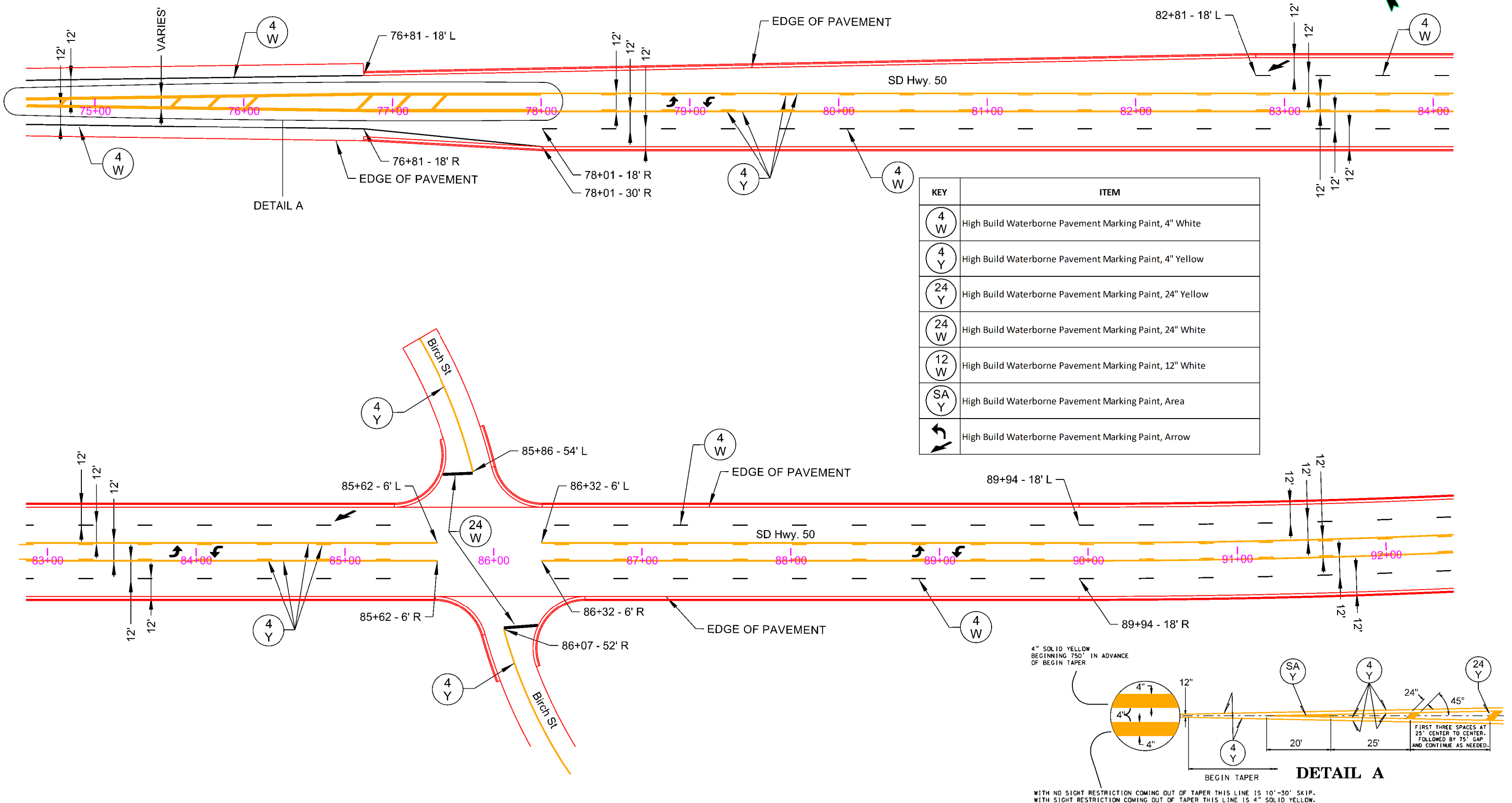


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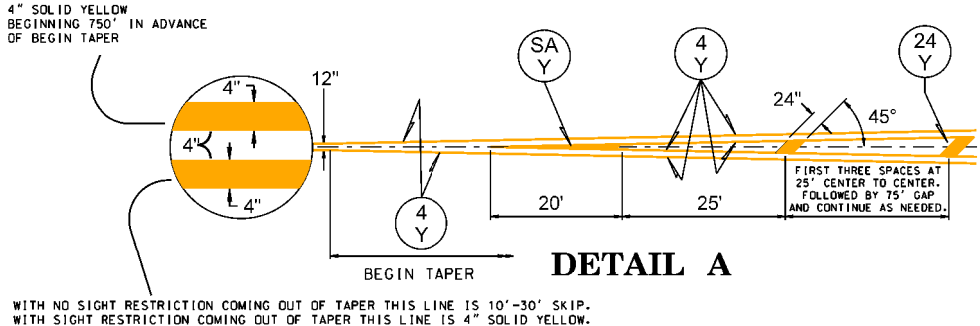


Plotting Date: 12/05/2024

PAVEMENT MARKING LAYOUT SD Hwy 37 & SD Hwy 50



KEY	ITEM
4 W	High Build Waterborne Pavement Marking Paint, 4" White
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24 Y	High Build Waterborne Pavement Marking Paint, 24" Yellow
24 W	High Build Waterborne Pavement Marking Paint, 24" White
12 W	High Build Waterborne Pavement Marking Paint, 12" White
SA Y	High Build Waterborne Pavement Marking Paint, Area
↩	High Build Waterborne Pavement Marking Paint, Arrow

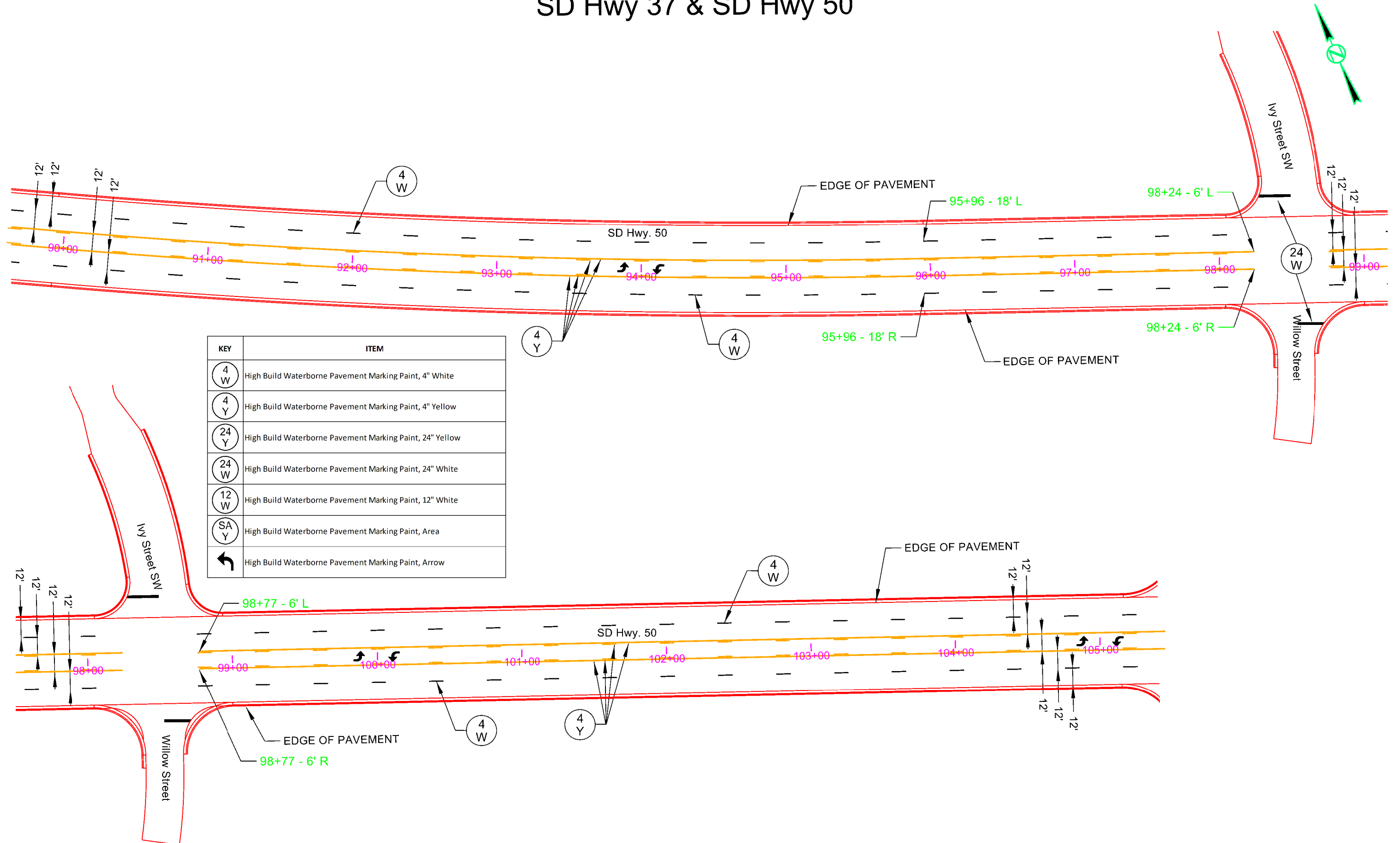


WITH NO SIGHT RESTRICTION COMING OUT OF TAPER THIS LINE IS 10'-30' SKIP.
WITH SIGHT RESTRICTION COMING OUT OF TAPER THIS LINE IS 4" SOLID YELLOW.

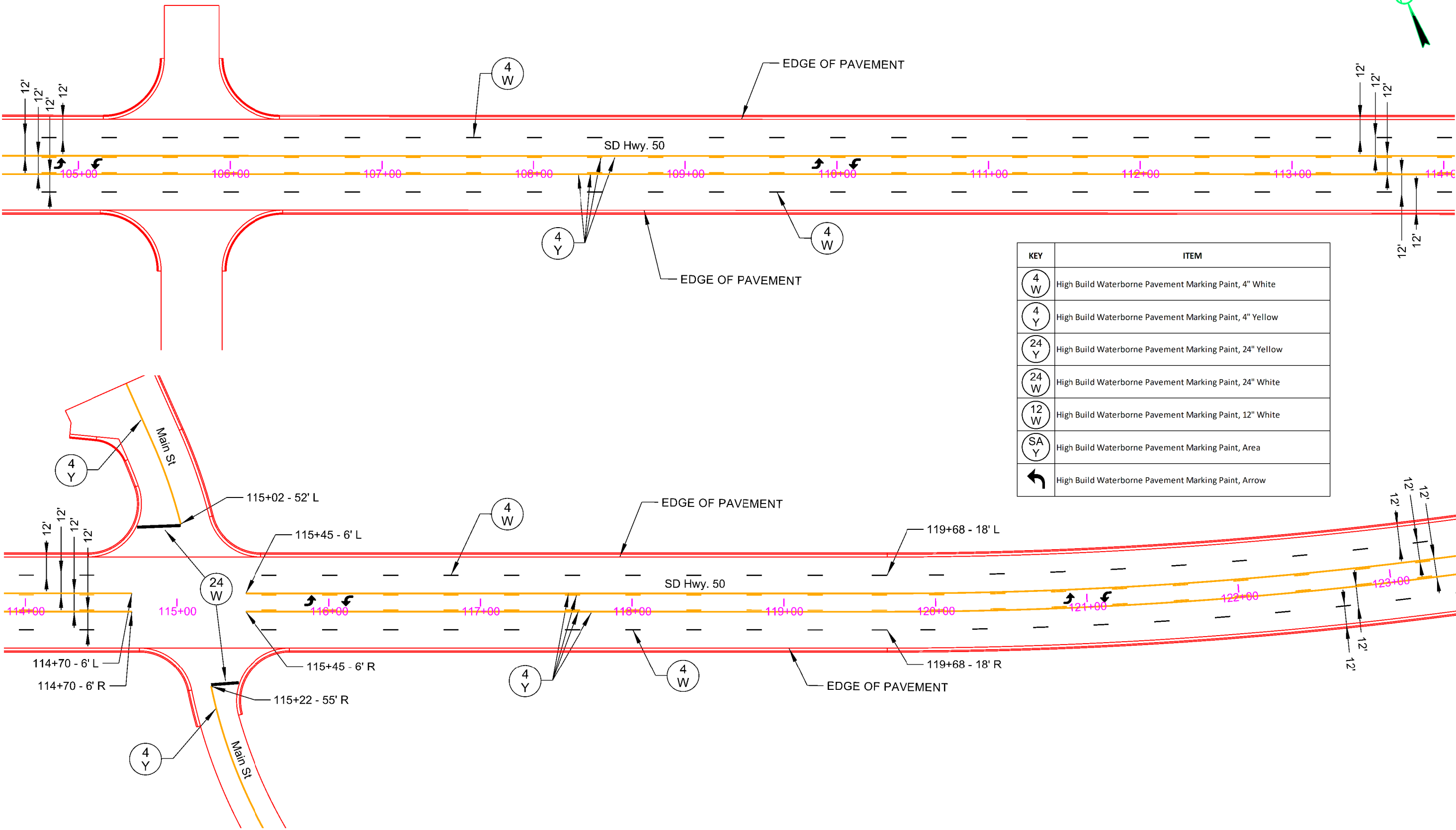
Plotting Date: 12/05/2024

PAVEMENT MARKING LAYOUT

SD Hwy 37 & SD Hwy 50



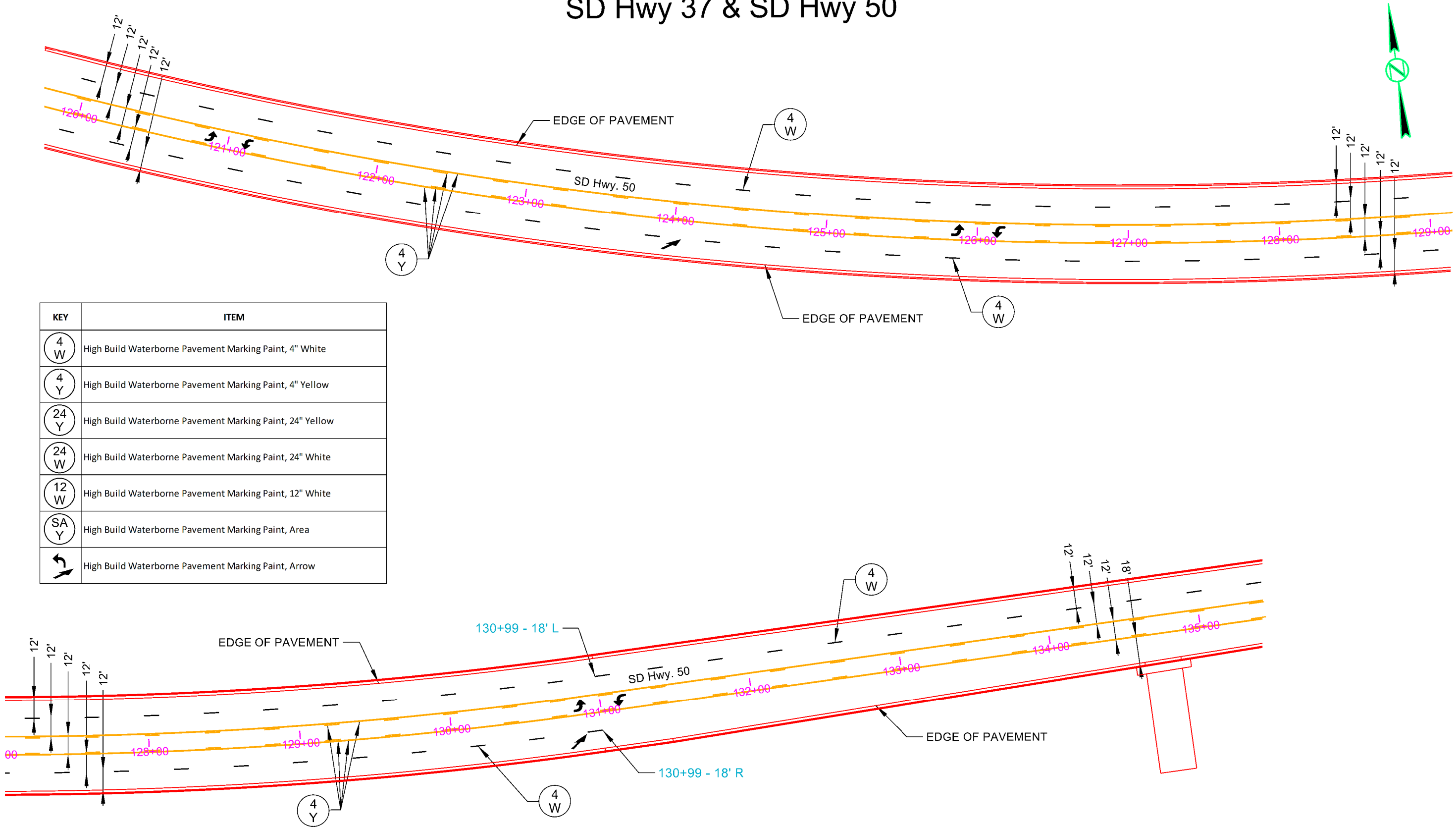
PAVEMENT MARKING LAYOUT
SD Hwy 37 & SD Hwy 50



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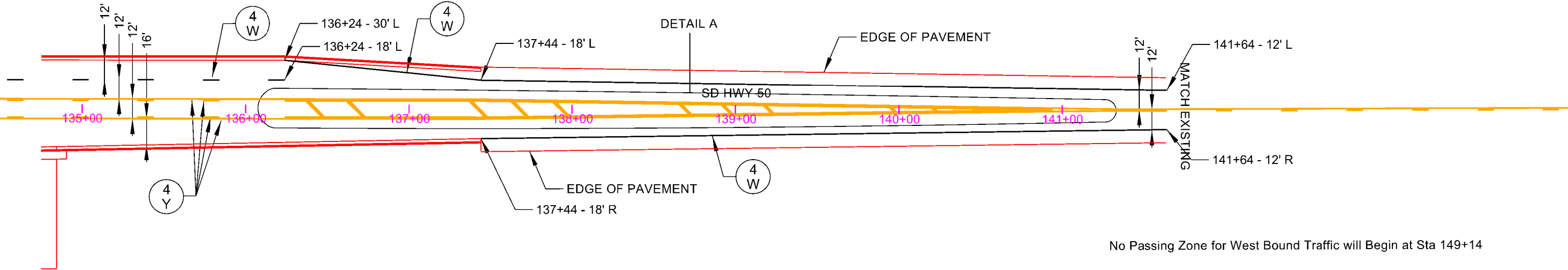


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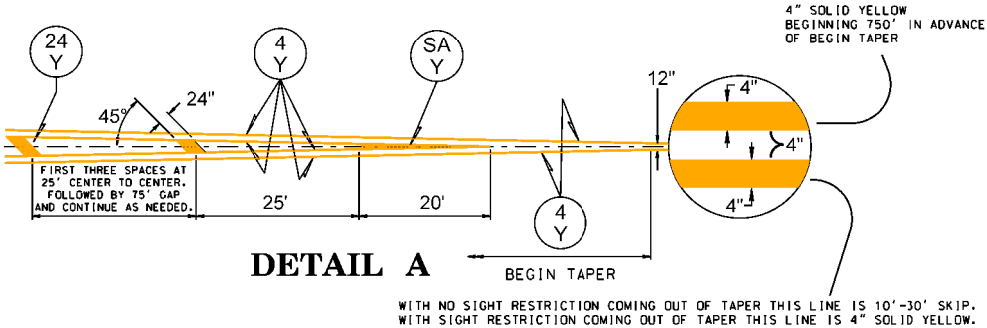
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PAVEMENT MARKING LAYOUT SD Hwy 37 & SD Hwy 50



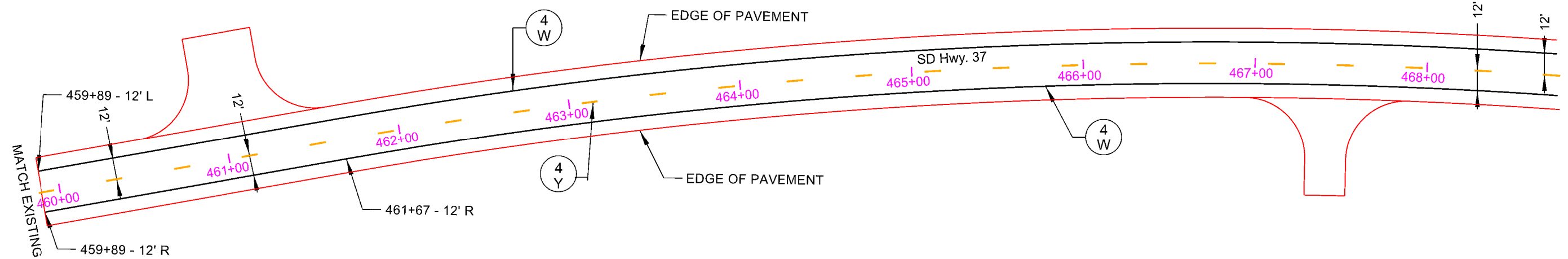
No Passing Zone for West Bound Traffic will Begin at Sta 149+14

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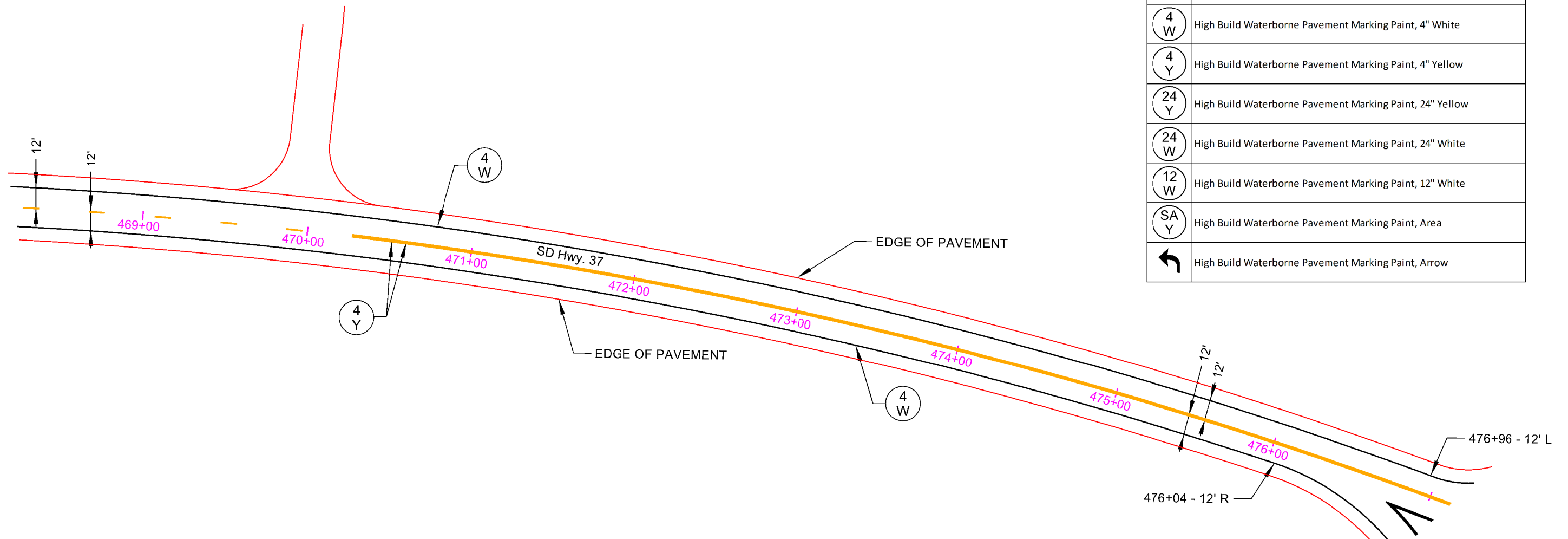


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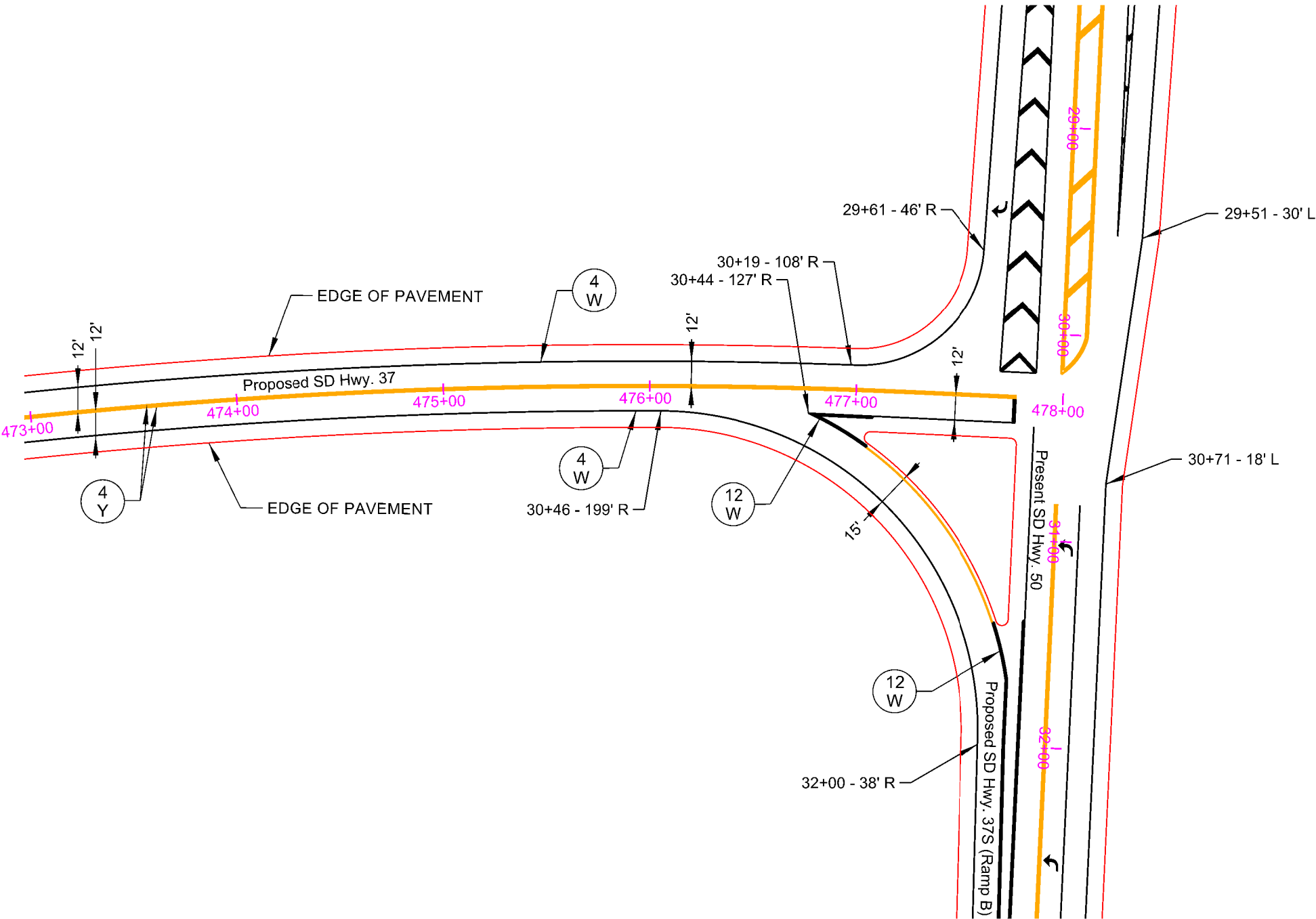
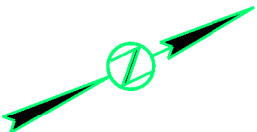
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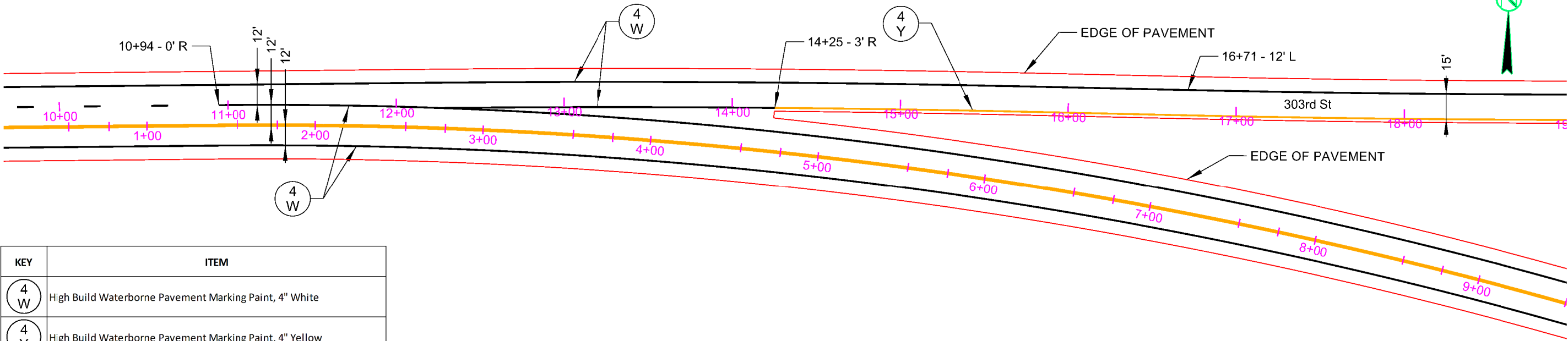


PAVEMENT MARKING LAYOUT
SD Hwy 37 & SD Hwy 50

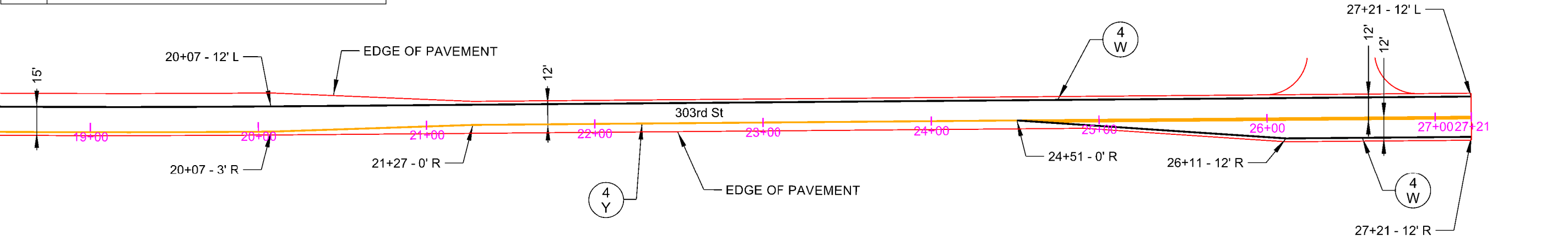


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PAVEMENT MARKING LAYOUT
SD Hwy 50

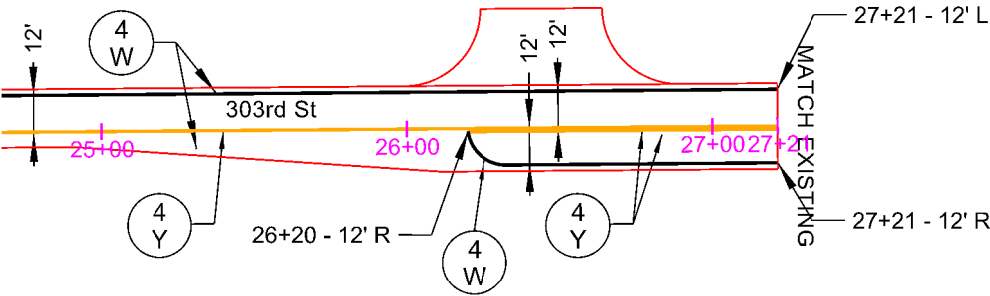


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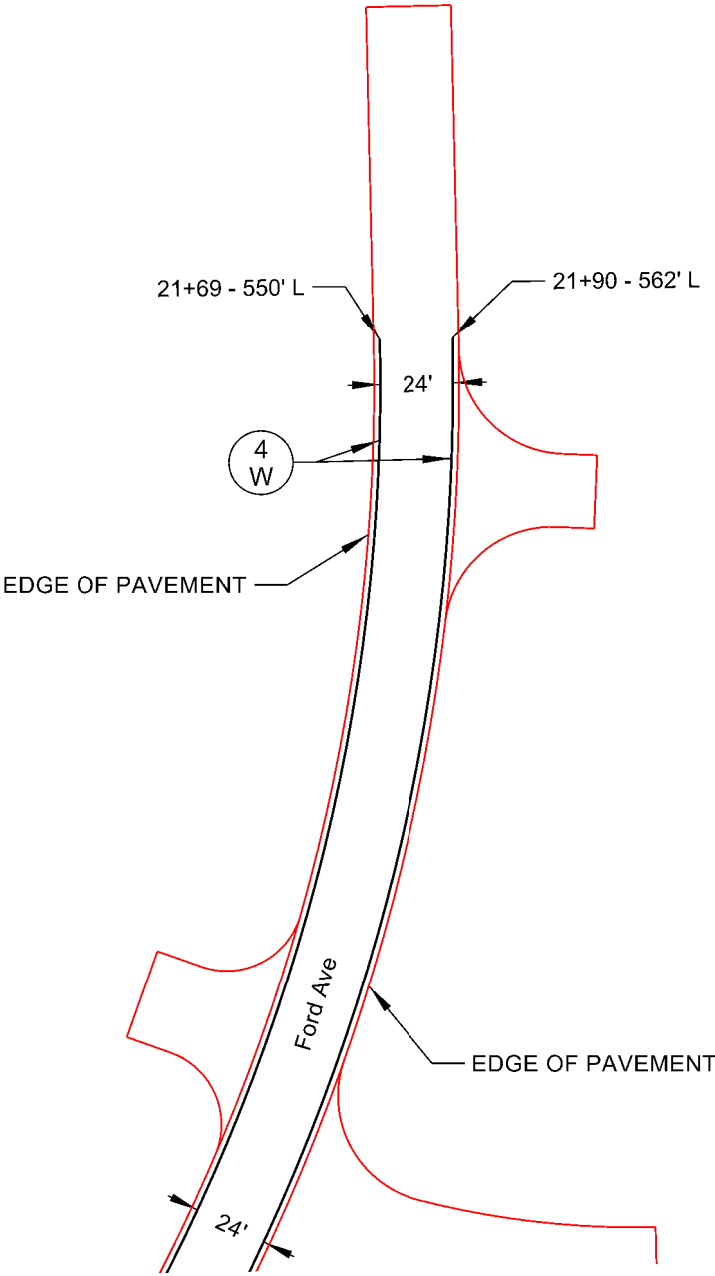


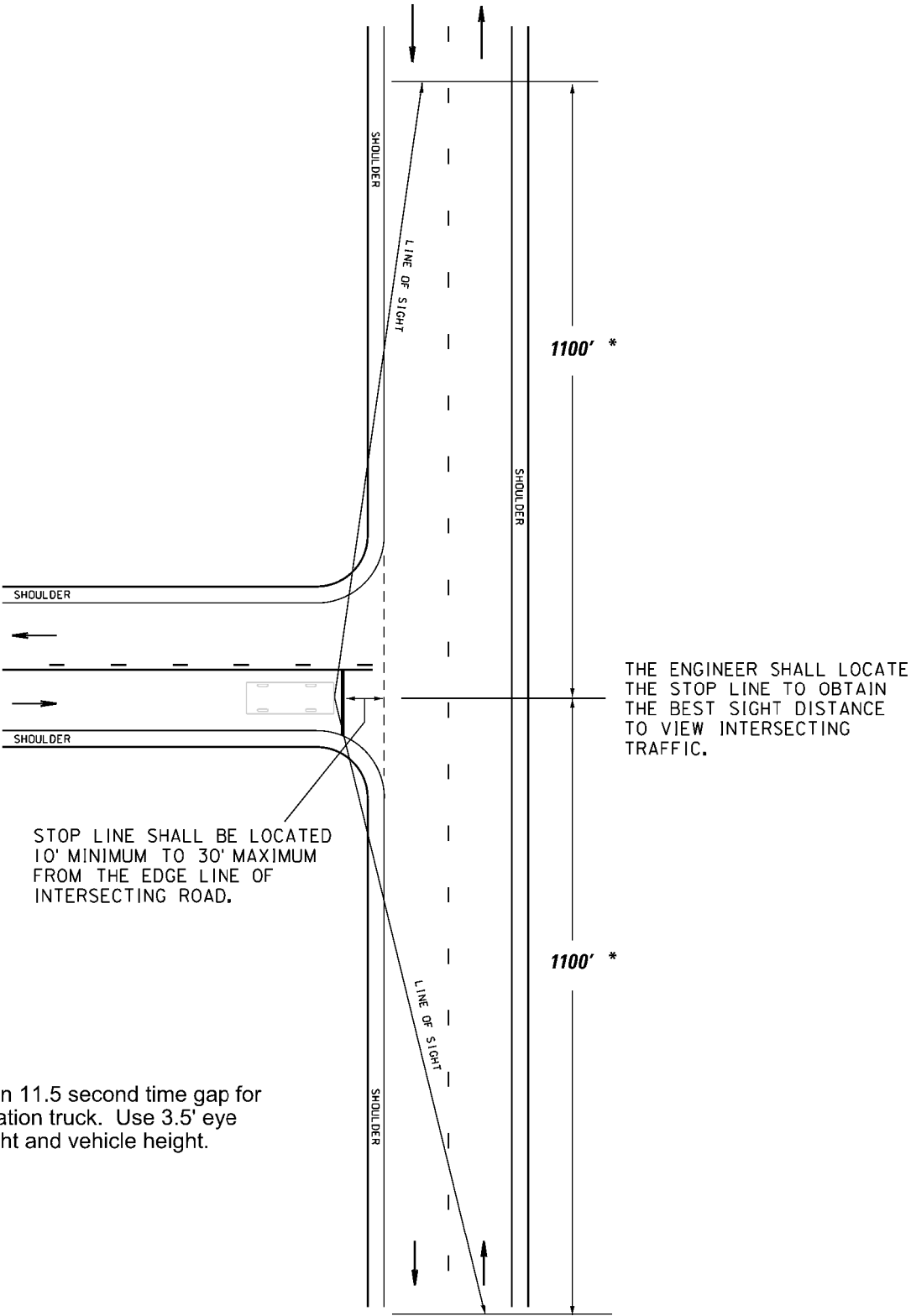
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SD Hwy 37 & SD Hwy 50



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	High Build Waterborne Pavement Marking Paint, Arrow





* - Based on 11.5 second time gap for combination truck. Use 3.5' eye height and vehicle height.

STOP LINE PAVEMENT MARKING INSTALLATION